

1. (First Amended) A method for non-destructive evaluation of a sample, comprising the steps of:

obtaining a defect image of said sample,

displaying real time image of said sample on a display device, wherein the defect image and the real time image of said sample have a one-to-one correspondence with each other; and

superimposing one of the defect image and the real time displayed image on the other of the defect image and the real time displayed image.

2. (First Amended) The method of claim 1, further comprising the steps of:

locating a defect in the sample by way of the defect image;

referencing the sample while viewing said superimposed real time image and the referenced defect image on said display device.

3. (First Amended) The method of claim 2, wherein the step of referencing the sample includes the step of marking the sample according to the referenced defect image.

4. (First Amended) The method of claim 2, wherein the step of referencing the sample includes the step of measuring a characteristic of the sample at a selected location.

5. (First Amended) A method for non-destructive evaluation of a sample, comprising the steps of:

obtaining a defect image of said sample,

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displaying a real time image of said sample on display device, wherein the defect image and the real time image have a one-to-one correspondence with each other;
displaying the defect image on a digital display device;
superimposing the defect image onto the display of the real time image; and
referencing the sample while viewing, on the display device, the superimposed real time and defect images.

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7. (First Amended) The method of claim 6, further comprising the steps of:
changing the temperature of the sample; and
obtaining at least one defect image over a time period of temperature change of said sample.

8. (First Amended) The method of claim 7, wherein the changing step includes directing a heating pulse onto the sample such that the heat is distributed generally evenly over the sample.

9. (First Amended) The method of claim 7, wherein the changing step includes directing continuous heat onto the sample such that the heat is distributed generally evenly over the sample.

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13. (First Amended) An apparatus for non-destructive testing/evaluation of a sample, comprising:
a camera that captures a defect image and generates a real time image of the sample;

a processor coupled with the camera to digitize the defect image and the real time image;

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cmd a display for displaying the digitized defect image and the real time image, wherein the processor and the display include means for referencing the defect image and superimposing one of the defect image and the real time image onto the other of the defect image and the real time image.

17. (First Amended) A computer readable storage device containing program steps used to direct the operation of a digital computer used for non-destructive testing and evaluation of materials, comprising the steps of:

A6 obtaining a defect image and a real time image of the sample, the defect image and the real time image having a one-to-one correspondence with each other; and

superimposing one of the defect image and the real time image on the other of the defect image and the real time image.

18. (First Amended) The computer readable storage device of claim 17, further comprising the steps of:

locating a defect in the sample via the defect image;

referencing the defect image according to the located defects; and

referencing the sample after the superimposing step while viewing the real time image and the referenced defect image on a display.

A7 21. (First Amended) A computer readable storage device for non-destructive evaluation of a sample, comprising the steps of:

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obtaining a defect image and a real time image of the sample, the defect image and the real time image having a one-to-one correspondence with each other;

displaying the defect image on a digital display;

superimposing the defect image onto the real time image on the display; and

referencing the sample while viewing the real time image and the defect image on the display.

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22. (First Amended) The computer readable storage device of claim 21, wherein the defect image is an infrared image, and wherein the defect image and the real time image are obtained from an infrared camera.

23. (First Amended) The computer readable storage device of claim 22, further comprising the steps of:

changing the temperature of the sample; and

obtaining at least one defect image over a period of time where the sample temperature is changing.

REMARKS

Claims 1-5, 7-9, 13, 17, 18, and 21-23 have been amended. No new claims have been added. No claims have been cancelled. Accordingly claims 1-28 remain under prosecution in this application.

In the Drawings

Figures 3A-3F were objected to because they were originally submitted as photographs and the examiner does not believe photos are the only practice media for